

Chapter One

Introduction

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I. Introduction

The percentage of the world's poor living below \$1 per day fell by nearly a half in the last two decades of the 20th century. However, reduction in global poverty has been uneven across and within regions of the developing world. While the dramatic progress made in East Asia -- especially China -- is well-known, poverty indicators elsewhere have proven more fixed. This asymmetrical development story also holds true for the Arab countries.

This region garners little international attention for poverty because its poverty rates are far lower than other regions like South Asia or sub-Saharan Africa, but high aggregate wealth hides significant pockets of hardship. The least-developed countries in the Arab region witnessed large increases in the proportion of their populations living below the poverty line in the last decade and some, like Yemen and Sudan are among the poorest in the world. As a whole, the region has seen little decrease in absolute poverty measures since the early 1990s. Moreover, the Arab region had one of the lowest per capita GDP growth rates in the 1990s and early part of this decade, which translated into slow progress in human development compared to other developing countries.

Fortunately, poverty reduction is now widely recognized as the overarching objective of development by both the international community and Arab country governments. The Millennium Development Goals (MDGs), adopted by world leaders at the Millennium Summit of the United Nations in September 2000 embody this recognition. Under the first Millennium Development Goal, leaders have agreed to halve the proportion of people living on less than a dollar a day by 2015. In fact, the first seven goals are poverty-related.¹ The World Bank and IMF also appear to be embracing a broader development agenda, moving beyond structural adjustment and its uniform application of neoclassical theory to all countries toward a more holistic Comprehensive Development Framework. Their adoption of the Poverty Reduction Strategy process (PRSP) as a key consideration in the

¹ They deal respectively with eradication of extreme poverty and hunger; achieving universal primary education; promoting gender equality and empowering women; reducing child mortality; improving maternal health; combating HIV/AIDS, malaria and other diseases; and, ensuring environmental sustainability.

disbursement of debt relief and concessional financing also signals a commitment to a poverty-oriented development process.

Many governments in the Arab region have adopted their own poverty reduction strategies or similar concept papers to outline strategic plans and to earmark financial resources for achieving significant poverty reduction goals. At the regional level, the League of Arab States (LAS) drafted an Arab poverty reduction strategy, which was adopted by the Council of Arab Ministers for Social Affairs in November 2006. The members of LAS also reiterated their commitment to the MDGs in the Arab Declaration adopted in June, 2005. The New Partnership for Africa's Development (NEPAD), adopted by African Heads of State and Government in 2001, is an African-owned vision and strategic framework for Africa's renewal. Four of the Arab countries included in this study -- Egypt, Morocco, Tunisia, and Sudan -- are members of NEPAD.

As national governments and their development partners outline strategic plans for reducing poverty, they require a nuanced understanding of the specific mechanisms through which public policy interventions can contribute to poverty reduction. In fact, the role of the state in achieving social welfare is a perennial debate. However, most economists agree that the role of the government is to maximize efficiency by correcting market failures while also taking measures to provide non-market goods like equity and poverty-reduction. Governments can use a diverse set of interventions to achieve these objectives such as regulations, taxes, and trade, monetary, and spending policies. This book is concerned with one realm of government policy -- that of public spending -- because it is one of the most effective instruments that governments can use to achieve development goals.

Governments wishing to improve the welfare of their citizens can spend their financial resources in many ways. Investments in such things as research and development, education, and infrastructure (e.g. roads, electricity, telecommunications, and water) may facilitate economic growth over the long-term, but may ignore those traditionally left out of the growth process. Spending on health, social security programs, and cash transfers to the poor may meet the immediate needs of the populace, while neglecting productive investments. The reduction of poverty over time requires both economic growth and equity (i.e. improvement in the distribution of income and consumption), so prioritizing government investment to maximize both of these objectives is essential.

Over the last decade, researchers at the International Food Policy Research Institute (IFPRI) and elsewhere have examined the impact of various types of public spending on growth and poverty reduction in many places.² These types of studies provide developing country

² See, for example, Fan, S., and Rao, (2003), Fan, S., Zhang, L., and X. Zhang, (2002), Fan,

policymakers with the empirical evidence they need to create priorities for their public resources and to increase the efficiency of public interventions. But to date, few such studies have examined the effects of government spending policies in Arab countries despite the fact that poverty and inequality are significant public policy problems in the Arab region. In an effort to fill this knowledge gap, the objective of this book is to examine the channels through which public expenditures in Arab countries affect development indicators in both the short- and long-run, and to identify how priorities can be set to maximize the social development impact of limited public resources. Since the majority of the region's poor live in rural areas, it pays particular attention to the types of public spending that affect the rural poor.

The remainder of this chapter provides an overview of the book. Section (II) presents a brief background on poverty and public expenditure in the Arab region. Section (III) presents a conceptual framework of the effects of government spending on growth and poverty reduction. Section (IV) outlines the contents of the book.

II. Poverty and Public Expenditure in the Arab Region

Many outside observers assume that the great wealth of the Oil Economies, which boast an average per capita GDP of \$10,350 (USD), makes poverty irrelevant across the entire Arab region. In fact, countries in the region display an enormous spread in wealth and economic activity, depending on the structure of their economies. While Diversified Economies are home to nearly half of the region's population (46.5%), they only constitute 26.6% of the region's GDP. Conversely, 11.5% of the population lives in Oil Economies, but they enjoy 46.5% of aggregate GDP. Even more strikingly, per capita GDP ranges from an average of \$10,350 (USD) in the Oil Economies to just \$430 (USD) in the Primary Export Economies. The three Mixed Oil Economies are home to about a quarter of the region's population and a quarter of its wealth.³

According to international estimates of poverty reported by Chen and Ravallion (2004), the Arab region had the lowest incidence of poverty among developing regions in 2001: with an absolute poverty line of \$1.08 per person per day, only 2.4% of the total population of Arab countries were living in poverty. Yet estimates of individual country poverty rates vary widely, from about 4.7% in Tunisia to 41.8% in Yemen. Using country-specific poverty lines, the overall head-count ratio for the Arab

S., Hazel, P., and S. Thorat, (1999).

³*Diversified Economies* were considered here to be Egypt, Jordan, Lebanon, Morocco, Syria, Tunisia. *Primary Export Economies* were Djibouti, Mauritania, Sudan, and Yemen. *Oil Economies* were Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and UAE. *Mixed Oil Economies* were Algeria, Libya, and Iraq.

region has been estimated at 26.7%, an order of magnitude higher than the international estimate (see Ali in this volume). This figure better captures the poverty trends observed on the ground over the last decade. Some Arab countries are also characterized by high levels of income inequality, although the literature has been less conclusive on this fact for the region as a whole.⁴

Unlike inequality, there is no disagreement that unemployment is a huge challenge in almost all Arab countries. Slow or negative growth rates and rapid population growth have affected employment across the region and most countries suffer from double-digit unemployment rates, with much higher joblessness in “regional hotspots” like Algeria, Iraq, and the Palestinian territory. Generating productive and gainful employment for those openly unemployed today, as well as for those newly entering the labor force is critical to addressing poverty issues in the region, especially in environments where formal safety nets are ineffective. The World Bank has argued that close to 100 million new jobs will need to be created by 2020 (World Bank, 2004). Clearly, jumpstarting the growth process will be central to this endeavor.

Unfortunately, government expenditure in the Arab region has been skewed toward less efficient forms of social sector and education spending, and defense, at the expense of investments that may have more effectively stimulated the growth process. Arab country governments have historically shown a strong commitment to social welfare, which may partially explain the low absolute poverty rates in the region. In the decades after Independence, many countries established comprehensive social protection programs, which included combinations of cash and in-kind transfers, consumption subsidies of basic goods and services, and even pensions, disability, and health insurance. Yet, some countries focused their social spending on universal consumer subsidies long after they were shown to be costly and inequitable. In addition, a number of Arab countries use public sector employment as a blunt tool for social insurance, spending large sums on the public wage bill. For example, the public sector employs more than a third of the total employed labor force in Jordan and Egypt. In Morocco, public sector wages represent 50-55% of the government’s current expenses, and almost 12% of GDP (Adams and Page, 2003; Touhami and Rockmore, this volume).

Arab countries also spend more on education than other countries at comparable income levels. Table 1, which shows the composition of total

⁴ Adams and Page (2003) portray the Arab region as having “one of the most equal income distributions in the world.” The 2002 Arab Human Development Report cites other studies that are less sanguine. It suggests that income inequalities in countries such as Egypt, Iraq, and Jordan increased in the last two decades. Insufficient data may lie at the crux of the problem. As the UN report points out, “analysis of income-inequality issues in the Arab region is frustrated by lack of comprehensive and comparable data sets as well as by the reluctance of some official sources to share primary survey data with researchers.”

government expenditure for Egypt, Morocco, and Tunisia, reflects this trend in these countries. Education is the largest single line item in each of these countries, and makes up more than a fifth of total spending in recent years. However, it has been suggested that despite high levels of investment, the educational systems of Arab countries do not perform well. One IMF study pointed to emphasis on quantity rather than quality teachers, lagging education technology, inflated administrative bureaucracies, and a spending bias toward higher, rather than primary education (Ahmed and Davoodi, 2003).

Table (1)
Composition of Total Expenditure (percent)

| Country | Year | Agriculture | Education | Health | T&C | Social Security | Defense | Others | Total |
|---------|------|-------------|-----------|--------|------|-----------------|---------|--------|-------|
| Egypt | 1980 | 4.35 | 7.25 | 2.08 | 0.99 | 8.35 | 8.92 | 68.07 | 100.0 |
| | 1990 | 4.73 | 14.00 | 2.81 | 2.88 | 12.89 | 11.47 | 51.22 | 100.0 |
| | 2000 | 6.85 | 19.87 | 4.58 | 3.15 | 3.05 | 9.85 | 52.65 | 100.0 |
| | 2004 | 7.06 | 21.28 | 5.59 | 2.35 | 1.42 | 10.45 | 51.86 | 100.0 |
| Morocco | 1980 | 6.46 | 17.30 | 3.38 | 9.06 | 5.15 | 17.94 | 40.71 | 100.0 |
| | 1990 | 4.98 | 18.19 | 3.00 | 5.92 | 5.41 | 12.83 | 49.66 | 100.0 |
| | 2000 | 3.50 | 18.26 | 3.37 | 3.41 | 10.15 | 13.13 | 47.81 | 100.0 |
| | 2004 | 2.76 | 20.78 | 4.01 | 1.23 | 12.84 | 12.87 | 45.51 | 100.0 |
| Tunisia | 1980 | 14.52 | 17.05 | 7.20 | 4.83 | 7.45 | 12.21 | 36.74 | 100.0 |
| | 1990 | 8.00 | 17.03 | 6.12 | 2.75 | 14.19 | 5.82 | 46.09 | 100.0 |
| | 2000 | 5.76 | 23.42 | 19.36 | 2.36 | 15.86 | 5.17 | 28.08 | 100.0 |
| | 2004 | 8.11 | 26.47 | 7.07 | 3.35 | 24.46 | 6.49 | 24.05 | 100.0 |

Notes: T&C stands for transportation and communication

a Includes agriculture, forestry, fishing, and hunting.

b Includes fuel and energy; mining, manufacturing, and construction; general administration.

Sources: Calculated using data from International Monetary Fund's Government Finance Statistics (various issues).

2004 values for Egypt are extrapolated.

Countries in the region continue to devote a large fraction of their budgets to military spending. While defense spending in the three countries included in Table 1 has declined over the past 25 years, it still constitutes a significant portion of the budget, especially in Egypt and Morocco. Military spending in the region as a whole accounted for nearly 20% of government spending in the 1990s. In contrast, Arab governments have spent little on productive investments such as in infrastructure or agriculture. The countries in Table 1 have never spent more than 9% of their budgets on agriculture, except for Tunisia in the 1980s.

Most Arab countries have large public sectors, especially compared to other developing regions. In the 1970s, government expenditure in the Arab region averaged about 42 percent of GDP, some 12 points above the

rest of the developing countries. This ratio has been declining since then due to both structural reforms and fluctuating oil revenues, but it remained high relative to international standards at the beginning of this decade (Abed and Davoodi, 2003). Yet in light of disappointing growth performance and the need to generate substantial new employment opportunities, Arab governments may want to reorient their spending priorities so that they can better achieve their growth and poverty reduction goals. The next section considers this process of priority setting.

III. Conceptual Framework: Effects of Government Spending on Growth and Poverty Reduction

Since public resources are limited and thus have opportunity costs, setting priorities is critical. In this book, we treat the government as a social planner who sets priorities for the optimal allocation of resources by maximizing a weighted social welfare function defined over, for example, per capita income, income distribution, or the poverty rate.⁵

Policymakers must set their priorities among the many classifications of government spending. The IMF and World Bank often divide total spending into three broad categories: economic spending, social spending and other spending. Economic spending covers sectors of agriculture and infrastructure (energy, transport, telecommunication, etc) while social spending includes health, education, nutrition, and social safety nets. Social spending can be further classified into social services (like education and health), social insurance (pensions and unemployment insurance), social assistance (cash and in-kind transfers to the poor or certain social groups), and employment generating program. Other spending includes general administration and defense.

Government spending can also be divided into those expenditures whose welfare goals are meant to be realized in the long- or short-term. Investments that build human and physical capital, such as infrastructure, education, and technology, fall into the first category as they generally facilitate economic growth over the long-term, contributing to poverty reduction through rising aggregate incomes over time. This type of investment can also contribute to poverty reduction in the short-run by increasing demand for labor, intermediate inputs, and other factors of production. On the other hand, social safety net or welfare spending often has an immediate impact on income and poverty through direct transfers, but the latter could also have long-term impact if the transfer is conditional on households or communities building human

⁵ This is similar to the approach used by Deacon (1978), Dunne and Smith (1984), Hayes and Grosskopf (1984), and Trimidas (1999).

and physical capital. Taking both of the above classification frameworks into account, Figure 1.1 maps the components and determinants of public spending and the channels through which it affects income poverty.

IFPRI's previous work on the returns to public investment in various regions has revealed a number of consistent themes, some of which may be instructive for the Arab countries. First, the returns to public investments vary widely across different types of investment and regions, even within the same country. Better regional targeting holds significant potential to achieve more growth and poverty reduction with a given amount of investment. Regional analysis in Asia suggests that investments in less developed areas offer the largest poverty reduction per unit of spending, and also the highest economic returns. On the other hand, research in Africa shows high returns to public investment even in high potential areas, indicating an overall lack of investment in all regions for that continent. Second, agricultural research, education, and rural infrastructure are the three areas of public spending that most effectively promote agricultural growth and reduce poverty. Evidence from China shows that simple, low-cost types of infrastructure, such as rural feeder roads, often have the highest payoff in terms of growth and poverty reduction, per unit of investment, and a study of Uganda points to similar conclusions. Government spending on anti-poverty programs, such as safety nets or food subsidies generally has a small impact on poverty reduction, owing mainly to inefficiencies in targeting and misuse of funds.

Despite the strength of their analyses, past IFPRI studies have not considered the economy-wide (general equilibrium) effects of government spending. Since ignoring these effects can bias estimates of the returns to investment, this project seeks to combine econometric analysis with dynamic-recursive, country-level CGE models wherever possible. The next section outlines the conceptual and methodological content of this book.

IV. Content of the Book

This book begins with three background papers on the current state of knowledge about poverty and public policy in the Arab region, which establish the context for the set of five country-level case studies that follow. Ali reviews the existing knowledge on poverty in the Arab region in Chapter 2, touching on both measurement methodology and current evidence.

He notes that the studies in this chapter, and in the book as a whole, used the dominant money-metric approach to poverty measurement.⁶

As well, all studies used the cost-of-basic-needs method of calculating poverty lines, estimating the non-food component by Engel curves. In Chapter 3, Laabas and Limam estimate a simultaneous equation model with three endogenous variables, namely growth, inequality, and poverty, for a sample of 77 countries. They highlight the insights into regional-level trends that the cross-country regression methodology can provide. Babiker focuses on a second useful methodology in Chapter 4, where he provides a road map for conducting poverty analysis using a Computable General Equilibrium (CGE) framework for a typical Arab country.

Chapters 5-9 present the case studies examining the relationship between public spending, growth, and poverty reduction in five Arab countries: Egypt, Morocco, Sudan, Tunisia and Yemen. The case study countries were selected to capture some of the diversity of the region: they represent different stages of development, economic structure, poverty rates, and reliance on the rural, agricultural sector. At the same time, they all are either Diversified Economies or Primary Export Economies. Poverty is expected to pose a development problem in all of the Arab countries with these types of economies, and the sample represents five out of the ten Arab countries falling into these categories.

Chapter 5, authored by Fan, Al-Riffai, El-Said, Yu and Kamaly, presents the case study on Egypt. Egypt, a Diversified Economy, was chosen because it has one of the highest poverty rates among middle-income countries, and a large rural sector as a percentage of the overall economy. The chapter describes the Egyptian context by reviewing recent trends in economic and agricultural growth, poverty, and sector-specific public expenditures. Following this background, the authors use both econometric analyses and CGE modeling at the household, sector/regional, and macro level to assess the effects of various types of government spending on growth and poverty reduction and the trade-offs between these two goals. At the macro level, particular attention is paid to simulating how Egypt can achieve the Millennium Development Goals by reforming its public spending policy.

Tohami and Rockmore present the case study on Morocco in Chapter 6. Morocco was chosen because its striking disparity in rural and urban poverty rates hints at the underlying inequality in basic infrastructure. It also holds important lessons for policymakers trying to balance growth and equity goals as it is rapidly liberalizing trade with U.S. and EU, while also managing high rates of unemployment. After reviewing poverty and macroeconomic dynamics over the past several decades, the authors use

⁶ While those who experience and study poverty know that it is a complex and multi-faceted condition, for research purposes material deprivation is often considered both the key constituent of poverty and a proxy for the wide array of other aspects involved.

economic and statistical optimization approaches to examine the impact of public policies on the evolution of both household and regional poverty in Morocco.

Chapter 7, authored by Mahran, presents the case study on Sudan. Sudan was chosen because it is both an Arab and a sub-Saharan African country and because it hosts one of the highest poverty rates in the world. It holds lessons about the public policy challenges in a country fraught with civil war. The chapter reviews the growth performance of the country since the 1970s and discusses trends in public policy with emphasis on the growth of major macro aggregates. With respect to poverty, the chapter notes the highly binding data constraint in the country due to security reasons related to the civil war that has been going on since 1983. Due to this binding data constraint, the approach adopted in the chapter involved two stages: in the first stage province-level data is used to estimate the relationship between poverty and its determinants (mean income and inequality); in the second stage, annual time-series data collected at the national level is used to estimate the relationship between real per capita income and some public policy variables for the period 1971-2002. These relationships are then used to identify the public policy variables with significant effects on income growth and income distribution, and therefore on poverty reduction.

Chapter 8, authored by Bibi and Chatti, is on Tunisia. Tunisia represents a Diversified Economy that has enjoyed very strong progress in human development. With dedicated government investment, extreme poverty is no longer a serious concern in the country, but economic vulnerability remains. Using a dynamic CGE model for the period 1998-2015, the authors simulate the poverty affect of various changes to government policies: trade liberalization accompanied by increased consumption taxes; consumer food subsidy (a universal program); direct cash transfers to the needs (a targeted program); and conversion of food subsidies to public spending on infrastructure, education, and health.

In Chapter 9 Chemingui builds a dynamic CGE model for Yemen. Yemen was chosen because it has the highest poverty rate on the Arabian Peninsula and nearly three-quarters of its population is employed in agriculture or herding. The analysis develops a baseline scenario for the economy while projecting poverty trends to 2016. Alternative policy scenarios are compared in order to isolate the specific impact of public policy on poverty changes. The alternative scenarios assume an increase in public spending devoted to three priority areas (agriculture, education, and health) which affect the economy through an increase in sectoral, or economy-wide, total factor productivity (TFP).

The final chapter synthesizes the book, draws lessons from regional and country case studies, and points out the knowledge gaps.

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Figure 1: Conceptual Framework: Effects of Public Expenditures

